IN THE CLAIMS:

Claims 1, 2, 21, 23, 24, 28 through 31 and 37 have been amended herein. All of the pending claims 1 through 38 are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Currently amended) A method for forming a multi-level electrically conductive structure comprising:

providing a print screen having a preselected thickness, a top surface, a bottom surface, and at least one preconfigured print pattern therethrough;

providing a squeegee having a preselected hardness and having a generally tapering cross-section and terminating in a working edge;

arranging a substrate having at least one lower-level surface and at least one upper-level surface so as to be opposite the bottom surface of the print screen;

introducing an electrically conductive, screen printable substance onto at least a portion of the top surface of the print screen;

biasing the squeegee against the top surface of the print screen toward the substrate, resulting in a reference angle being formed between the bottom surface of the print screen ahead of the working edge of the squeegee and the at least one upper-level surface;

sweeping the squeegee in a predetermined forward direction so as to urge at least a portion of the electrically conductive, screen printable substance through the at least one preconfigured print pattern and onto at least a portion of the at least one lower-level surface to form a first portion of at least one continuous electrically conductive structure while maintaining the reference angle within a preselected range;

continuing the biasing and the sweeping of the squeegee so as to urge additional screen printable substance through the at least one preconfigured print pattern to form a second portion of

the at least one continuous electrically conductive structure vertically spanning a region intermediate the at least one lower-level surface and the at least one upper-level surface;

continuing the biasing and the sweeping of the squeegee so as to urge additional screen printable substance through the at least one preconfigured print pattern to form a third portion of the at least one continuous electrically conductive structure upon at least a portion of the at least one upper-level surface; and

exposing the substrate having the at least one continuous electrically conductive structure to an elevated temperature.

2. (Currently amended) The method of claim 1, wherein ~~said~~ exposing the substrate having the at least one continuous electrically conductive structure to an elevated temperature includes firing the at least one continuous electrically conductive structure.

3. (Original) The method of claim 1, further comprising:

maintaining a preselected snap-off distance not exceeding approximately 0.2 mil (0.0002 inches/0.0005 cm) between at least a portion of the bottom surface of the print screen and the at least a portion of the at least one lower-level surface when forming the first portion of the at least one continuous electrically conductive structure.

4. (Original) The method of claim 1, further comprising:

maintaining a preselected snap-off distance not exceeding approximately 0.2 mil (0.0002 inches/0.0005 cm) between at least a portion of the bottom surface of the print screen and the at least a portion of the at least one upper-level surface when forming the third portion of the at least one continuous electrically conductive structure.

5. (Original) The method of claim 1, further comprising:

maintaining the reference angle within a range of approximately 2° to approximately 12° when forming the second portion of the at least one continuous electrically conductive structure.

6. (Original) The method of claim 1, further comprising:

maintaining the reference angle within a range of approximately 5° to approximately 10° when forming the second portion of the at least one continuous electrically conductive structure.

7. (Previously presented) The method of claim 1, wherein the at least one upper-level surface is within a vertical distance of the at least one lower-level surface not exceeding approximately 10 mils (0.010 inches/0.025 cm).

8. (Original) The method of claim 1, wherein the at least one upper-level surface is disposed on an insulative structure comprised of a dielectric material.

9. (Original) The method of claim 8, wherein the insulative structure comprises at least two layers of dielectric material.

10. (Previously presented) The method of claim 1, wherein the screen printable substance comprises gold and has a viscosity in a range of approximately 50,000 to 600,000 centipoise.

11. (Previously presented) The method of claim 1, wherein the screen printable substance comprises gold and has a viscosity in a range of approximately 250,000 to approximately 400,000 centipoise.

12. (Previously presented) The method of claim 1, wherein the print screen comprises a mesh ranging from approximately 80 to approximately 500 and wherein the preselected thickness of the print screen does not exceed approximately 0.8 mils (0.0008 inches/0.0020 cm).

13. (Previously presented) The method of claim 1, wherein the print screen comprises a mesh ranging from approximately 80 to approximately 500 and wherein the preselected thickness of the print screen does not exceed approximately 0.5 mils (0.0005 inches/0.0013 cm).

14. (Original) The method of claim 1, wherein the substrate comprises at least one of a group comprising glass, borosilicate glass, and ceramic material.

15. (Original) The method of claim 1, wherein the at least one continuous electrically conductive structure comprises a plurality of continuous electrically conductive structures.

16. (Original) The method of claim 2, wherein the at least one continuous electrically conductive structure comprises a plurality of continuous electrically conductive structures being formed in a preselected pattern.

17. (Original) The method of claim 2, wherein the at least one upper-level surface comprises a plurality of upper-level surfaces being positioned on the substrate to form an array on the substrate and wherein the at least one continuous electrically conductive structure comprises a plurality of continuous electrically conductive structures.

18. (Original) The method of claim 17, wherein each upper-level surface of the plurality of upper-level surfaces comprises at least a portion of the at least one continuous electrically conductive structure being formed thereon.

19. (Original) The method of claim 18, wherein each upper-level surface of the plurality of upper-level surfaces respectively comprises a plurality of continuous electrically conductive structures being formed, at least in part, thereon.

20. (Original) The method of claim 18, further comprising segmenting the substrate into a plurality of individual substrate segments, each comprising at least one upper-level surface of the plurality of upper-level surfaces therein.

21. (Currently amended) The method of claim 1, wherein the at least one preconfigured print pattern of the print screen comprises having a dimensionally reduced portion with respect to the predetermined forward direction of the squeegee, which corresponds to the electrically conductive, screen printable substance being urged through the at least one preconfigured print pattern.

22. (Original) The method of claim 1, wherein the at least one continuous electrically conductive structure is a circuit trace terminating in a contact pad configured to make electrical contact with a complementary second continuous electrically conductive structure.

23. (Currently amended) A method for forming a multi-level electrically conductive structure on a substrate having a lower-level surface and an upper-level surface using a print screen and a squeegee, the print screen having a thickness, a top surface, a bottom surface, and a pattern, the squeegee having a hardness, a tapering cross-section, and a working edge, the method comprising:

introducing an electrically conductive, screen printable substance onto at least a portion of the top surface of the print screen;

biasing the squeegee against the top surface of the print screen toward the substrate, resulting in a reference angle being formed between the bottom surface of the print screen ahead of the working edge of the squeegee and the upper-level surface;

sweeping the squeegee in a forward direction so as to urge at least a portion of the electrically conductive, screen printable substance through the ~~print~~ pattern and onto at least a portion of the lower-level surface to form a first portion of at least one continuous electrically conductive structure while maintaining the reference angle within a range;

continuing the biasing and the sweeping of the squeegee so as to urge additional screen printable substance through the ~~print~~ pattern to form a second portion of the at least one continuous electrically conductive structure vertically spanning a region intermediate the lower-level surface and the upper-level surface;

continuing the biasing and the sweeping of the squeegee urging additional screen printable substance through the ~~print~~ pattern to form a third portion of the at least one continuous electrically conductive structure upon at least a portion of the upper-level surface; and

heating the substrate having the at least one continuous electrically conductive structure.

24. (Currently amended) The method of claim 23, wherein ~~said~~ heating the substrate having the at least one continuous electrically conductive structure to an elevated temperature includes firing the at least one continuous electrically conductive structure.

25. (Previously presented) The method of claim 23, further comprising:

maintaining a preselected snap-off distance not exceeding approximately 0.2 mil (0.0002 inches/0.0005 cm) between at least a portion of the bottom surface of the print screen and the at least a portion of the lower-level surface when forming the first portion of the at least one continuous electrically conductive structure; and

maintaining a preselected snap-off distance not exceeding approximately 0.2 mil (0.0002 inches/0.0005 cm) between at least a portion of the bottom surface of the print screen and the at least a portion of the upper-level surface when forming the third portion of the at least one continuous electrically conductive structure.

26. (Previously presented) The method of claim 23, further comprising:
maintaining the reference angle within a range of approximately 2° to approximately 12° when forming the second portion of the at least one continuous electrically conductive structure.

27. (Previously presented) The method of claim 23, further comprising:
maintaining the reference angle within a range of approximately 5° to approximately 10° when forming the second portion of the at least one continuous electrically conductive structure.

28. (Currently amended) The method of claim 23, wherein the ~~at least one~~ upper-level surface is within a vertical distance of the lower-level surface not exceeding approximately 10 mils (0.010 inches/0.025 cm).

29. (Currently amended) The method of claim 23, wherein the ~~at least one~~ upper-level surface is disposed on an insulative structure comprised of a dielectric material including at least two layers.

30. (Currently amended) The method of claim 23, wherein the electrically conductive, screen printable substance comprises a material having a viscosity in a range of approximately 50,000 to 600,000 centipoise.

31. (Currently amended) The method of claim 23, wherein the electrically conductive, screen printable substance comprises a material having a viscosity in a range of approximately 250,000 to approximately 400,000 centipoise.

32. (Previously presented) The method of claim 23, wherein the print screen comprises a mesh ranging from approximately 80 to approximately 500 and wherein the thickness of the print screen does not exceed approximately 0.8 mils (0.0008 inches/0.0020 cm).

33. (Previously presented) The method of claim 24, wherein the upper-level surface comprises a plurality of upper-level surfaces being positioned on the substrate to form an array on the substrate and wherein the at least one continuous electrically conductive structure comprises a plurality of continuous electrically conductive structures.

34. (Previously presented) The method of claim 33, wherein each upper-level surface of the plurality of upper-level surfaces comprises at least a portion of the at least one continuous electrically conductive structure being formed thereon.

35. (Previously presented) The method of claim 34, wherein each upper-level surface of the plurality of upper-level surfaces respectively comprises a plurality of continuous electrically conductive structures being formed, at least in part, thereon.

36. (Previously presented) The method of claim 33, further comprising segmenting the substrate into a plurality of individual substrate segments, each comprising at least one upper-level surface of the plurality of upper-level surfaces therein.

37. (Currently amended) The method of claim 23, wherein the ~~print~~ pattern of the print screen comprises having a dimensionally reduced portion with respect to the predetermined forward direction of the squeegee, which corresponds to the electrically conductive, screen printable substance being urged through the ~~print~~ pattern.

38. (Previously presented) The method of claim 23, wherein the at least one continuous electrically conductive structure is a circuit trace terminating in a contact pad configured to make electrical contact with a complementary second continuous electrically conductive structure.